

Please cancel claims 6 and 11-15, please add new claims 16-19, and please amend claims 1-5 and 7-10 by rewriting same to read as follows.

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Cont. *del*
--1. (Amended) An antenna coupling apparatus comprising:

a first antenna [installed] connected to a portable radio terminal, said first antenna being elongated in an axial direction;

a second antenna [differing] separated from said first antenna [together];

an electromagnetic coupling element consisting of a conductor that [is] electromagnetically couples said first and said second antennas together arranged adjacent to said first antenna at a first location along the axial direction of said first antenna; [and]

a ground conductor element arranged proximate said first antenna; and

a reflective ground element arranged adjacent to said first antenna and disposed a predetermined distance from said electromagnetic coupling element along said first antenna in the axial direction for reflecting [the] power transmitted from or received by said first antenna toward said electromagnetic coupling element.

--2. (Amended) The antenna coupling apparatus according to claim 1, wherein said electromagnetic coupling element and said reflective ground [conductor] element are [open at the top like a letter of the

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alphabet U, or are] in the form of a [ring or U shape having a width in the X direction] trough with a U-shaped cross section.

--3. (Amended) The antenna coupling apparatus according to claim 1, wherein said [first antenna and said second antenna are electromagnetically coupled together, using a plurality of said] electromagnetic coupling [elements and/or] element and said ground conductor [elements] element are each comprised of a plurality of electrically connected portions.

--4. (Amended) The antenna coupling apparatus according to claim 1, further comprising a matching circuit [that matches] for matching an impedance of said first antenna with said second antenna.

--5. (Amended) The antenna coupling apparatus according to claim 1, wherein said electromagnetic coupling [elements] element [and], said ground conductor [elements] element and said reflective ground element are disposed at [any plurality of positions, taken] predetermined locations taking into account [the] an impedance matching of said first antenna.

--7. (Amended) An external-antenna connecting apparatus for a portable radio terminal comprising:
an onboard antenna [installed] connected to [a]
the portable radio terminal;

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an external antenna coupled with said onboard antenna;

a body for [securing said] receiving the portable radio terminal [to said body] therein;

an electromagnetic coupling circuit disposed in said body[, which circuit] for electromagnetically [couples the] coupling said onboard antenna of [said] the portable radio terminal and said external antenna [together], said coupling circuit being [non-contact] out of contact with said portable radio terminal with respect to DC components[, when [said] the portable radio terminal is [secured to] received in said body, said electromagnetic coupling circuit including:

a electromagnetic coupling element arranged proximate to said onboard antenna at a first location along an axis of said onboard antenna;

a ground conductive element arranged proximate to said onboard antenna for providing a ground plane; and

a reflective ground element electrically connected to said ground conductive element and arranged proximate to said onboard antenna at a second location along the axis of said onboard antenna a predetermined distance from said first location for reflecting radio frequency energy toward said electromagnetic coupling element.

--8. (Amended) The external-antenna connecting apparatus according to claim 7, wherein said

electromagnetic coupling circuit [is fitted with]
includes a nonconducting cover.

--9. (Amended) The external-antenna connecting apparatus according to claim 7, wherein said electromagnetic coupling circuit has a U-shaped cross section [corresponding to an electromagnetic coupling element and a ground conductor element].

--10. (Amended) The external-antenna connecting apparatus according to claim 7, [said antenna connecting apparatus has] wherein said body and said electromagnetic coupling circuit form a case for said portable radio terminal, [and is] said case being shaped to cover [the] a part of the portable radio terminal which includes [the] said onboard antenna of [said] the portable radio terminal[,] and to hold the entire portable radio terminal when [fitted over the terminal to] inserted into the case.--

16. (New) The antenna coupling apparatus according to claim 1, wherein the electromagnetic coupling element and the ^{reflective} ground ~~coupling~~ element are formed in a ring shape and disposed coaxially with said axial direction of said first antenna and wherein said ground ^{conductor} ~~conductive~~ element is planar.

17. (New) An antenna coupling apparatus comprising:

an electromagnetic coupling element for receiving an electromagnetic signal, said coupling element having a shape which defines a receiving plane;

a ground plane conductor arranged proximate to the electromagnetic coupling element for establishing a ground plane;

a reflective ground element disposed in a predetermined relation to the electromagnetic coupling element and electrically connected with the ground plane conductor and formed of a shape which defines a reflecting plane said reflecting plane being substantially parallel to said receiving plane, for reflecting electromagnetic energy toward the electromagnetic coupling element.

18. (New) An antenna coupling apparatus for coupling an external antenna with a fixed antenna connected with a portable radio terminal, the apparatus comprising:

a body for receiving the portable radio terminal therein; and

an electromagnetic coupling having a trough-like shape with a U-shaped cross section elongated in an axial direction for receiving the fixed antenna when the portable terminal is disposed in said body, the coupling including:

an electromagnetic receiving element disposed at a first location along the axial direction of said trough-shaped coupling, electrically insulated from the

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fixed antenna for receiving electromagnetic oscillating signals from the fixed antenna and having a U-shaped cross section being conformal with the cross section of the electromagnetic coupling;

a ground plane disposed proximate to the receiving element; and

a reflective ground element disposed at a second location a predetermined distance from the first location along the axial direction of said coupling, electrically insulated from the fixed antenna, having a U-shaped cross-section being conformal with the cross section of the electromagnetic coupling for reflecting electromagnetic energy transmitted by the fixed antenna toward the receiving element.

--19. (New) An onboard external-antenna connecting apparatus for a portable radio terminal comprising:

an onboard antenna installed on the portable radio terminal;

an external antenna connected to said onboard antenna;

an external power for supplying power to the portable radio terminal;

a body for securing said portable radio terminal upon installing the portable radio terminal into said body from above;

an electromagnetic coupling circuit disposed in said body for electromagnetically coupling said onboard

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